

CLAIMS

1. A LED device for directing light including:
 - a LED;
 - a light reflecting cavity in which the LED resides;

5 a first encapsulant that at least partially encapsulates the LED and resides within the light reflecting cavity;

 - a second encapsulant residing above the first encapsulant;
 - a first device terminal;
 - a first connection between the first device terminal and the LED;

10 a second device terminal;

 - a second connection between the second device terminal and the LED;

and

wherein the first encapsulant is partially comprised of a first percentage of a first light reflecting substance.
- 15 2. A LED device for directing light according to claim 1 wherein a side surface of the LED is at least partially encapsulated by the first encapsulant.
3. A LED device for directing light according to claim 2 wherein a side surface of the LED is completely encapsulated by the first encapsulant.
4. A LED device for directing light according to claim 3 wherein the upper surface 20 of the first encapsulant resides above an upper surface of the LED.
5. A LED device for directing light according to claim 1 wherein the first encapsulant fills the light reflecting cavity to an upper perimeter of the light reflecting cavity.
6. A LED device for directing light according to claim 1 wherein the second 25 encapsulant is partially comprised of a second percentage of a second light reflecting substance.
7. A LED device for directing light according to claim 6 wherein the second percentage is less than the first percentage.

8. A LED device for directing light according to claim 7 wherein the first percentage is less than approximately one third of the second percentage.
9. A LED device for directing light according to claim 8 wherein the first percentage is less than approximately one half of the second percentage.
- 5 10. A LED device for directing light according to claim 1 wherein the first percentage is between 3% and 40%.
11. A LED device for directing light according to claim 6 wherein the first percentage is between 3% and 40%.
12. A LED device for directing light according to claim 1 wherein the first 10 percentage is between 3% and 10%.
13. A LED device for directing light according to claim 6 wherein the first percentage is between 3% and 10%.
14. A method for constructing a LED device including:
 - mounting a LED into a light reflecting cavity;
 - 15 connecting the LED to a first device terminal and a second device terminal;
 - at least partially filling the light reflecting cavity with a first encapsulant which is at least partially comprised of a first percentage of a first light reflecting substance;
 - and
 - placing a second encapsulant above the first encapsulant.
- 20 15. A method for constructing a LED device according to claim 14 wherein the second encapsulant is partially comprised of a second percentage of a second light reflecting substance.
16. A method for constructing a LED device according to claim 15 wherein the second percentage is less than the first percentage.